nmra magazine

September 2011

Visit the Grafton Division

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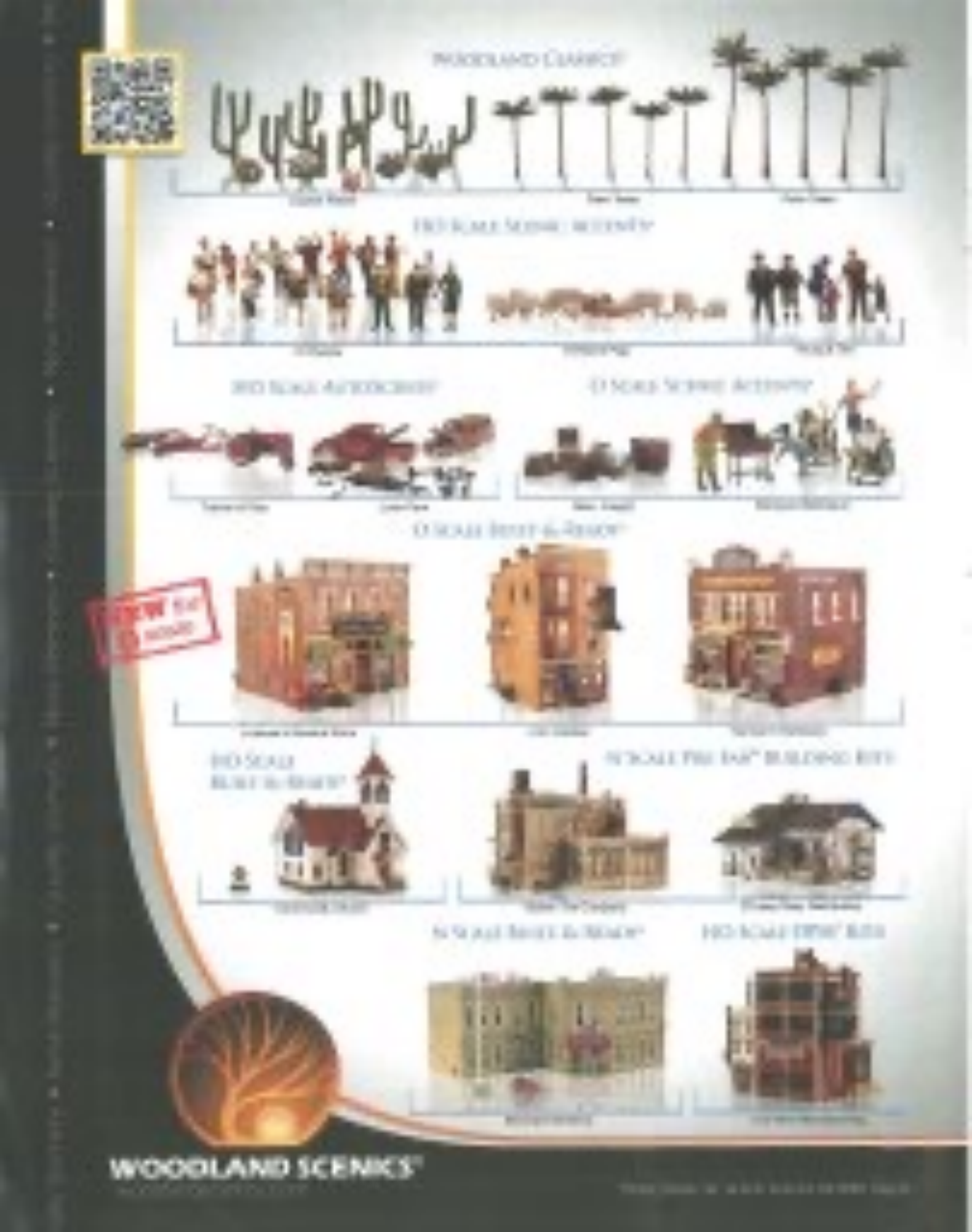
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nmra magazine

PUBLICATION INFORMATION

Publication Title and Statement of Ownership, Management, and Circulation (required by 39 U.S.C. 3685)

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Editor: Jim Hayes, 4121 Cromwell Road, Chattanooga, TN 37421-1594

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17. Signature and Title of Editor, Publisher, Business Manager, or Owner: Kevin Keefe, Managing Editor

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including multiple damages and civil penalties).

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Cruisin', part II

[illegible]

Questions and comments

[illegible]

President's Car

NMRA President Mike Brandt

[illegible]

of recommended votes). Then the shortlist controls votes to the local hobby shops. If enough people sign up this year, we will have to, if not, you can visit the shops on your own.

• How many people will the ship accommodate in telegraph? The ship will accommodate just under 1,800 people. We once spoke over 600 with the wives or spouses. This means about 1,200 residents, which is pretty close to the most average conservation attendance.

• Will you have conventions once a local hotel for those who never only to Vancouver and to have her from Disney? Disney is to be exactly that.

• Can you do this convention online? I don't know if I'll be able to [illegible] question. The planning for this once four conventions is already over by cheap rates decided. We called down telegraphs years at an additional cost to a couple of years so we lose our position reduced this we don't have a customer base large enough to support two major events in one year. We hope we'll be able to [illegible] to go sailing to [illegible] — but had no choice of that when a few years ago?

• What about the rest of online — especially since we will move at once any and future from cruises? Below is a table comparing current airfare from several U.S. airports to [illegible]. Do I convert columns are to Vancouver or boards and return from San Diego.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

We hope this provides a little more information for your consideration. Please take the time to [illegible] questionnaires back as soon as possible!

E.D. does interview

Those of you who read the [illegible] this year to one of the magazines already know this, but for those who don't, I want to take time you're aware that we are planning to [illegible], the Board of Directors found it necessary to increase [illegible] of living decrease for U.S. members and subscription rate of the Chronicle effective January 1, 2012.

The regulations stipulate that increases will be tied to increases in the Consumer Price Index since the time of the last dues increase, which was on January 1, 2008, three years ago. Everyone knows what has happened to costs since then. I joined my first club [illegible]. As of this January 1, Regular Membership will increase by $5 to $30, and subscription rates will increase by $5 to $32. Sustaining Memberships [which include the magazine] will increase by $45 to $50, and Student Membership [also including the magazine] will increase by $4 to $35.

The price increase will not affect our highly successful RailPass trial membership program, which will continue in 2012. The current RailPass rate of $20 per Regular Member Adult is scheduled to [illegible].

Memberships administered by the Australasian, British, and Canadian affiliates are affected by the [illegible] since they are handled separately from the Chicago office.

Merry Christmas!

I'm sure of [illegible] — Merry Christmas and a happy holiday [illegible].

NATIONAL OFFICERS

[illegible]

BOARD OF DIRECTORS

[illegible]

MEMBERSHIP

[illegible]

Cruise Convention Survey

Please fill out and return to address at bottom of page. Photocopies are acceptable.

Our NMRA division is now considering the idea of an NMRA Cruise probably the last week in September 2005. Since this is an activity that has never been attempted before, we need lots of input and really want to hear from you.

The proposed trip is from Vancouver, British Columbia, with stops in Seattle, Washington; San Francisco, California; and final destination San Diego, California. In each of these cities there would be layover, prototype rail, and city regularly scheduled library. Excursions offered by the cruise line were unknown, all costs would be additional cost just like a regular convention. Each local group would sponsor one day or one day period. The proposed schedule would allow for approximately 12 – hours in each port.

While cruising, attendees would have the opportunity to attend manufacturer clinics, as well as the regular shipboard activities including spas, nightly entertainment, shopping, casinos, and so forth.

Currently we are negotiating with Railroad Amateurs. Please take a few minutes to go online at railroadamateurs.com and review their numerous choices. There are other Destinations for a small cost of the days the ship is in port.

Please keep in mind that we have found a lot of people we work with, like clinic leaders, flagmen, etc., who are willing to help us, which might help keep costs down.

Please let us know from you ASAP (we need to make a presentation to the Board of Directors on early February), in the following:

Are you generally interested? _____ Yes/no _____ Don't

If NO, can you let us know why? We really would like to know! _____

_____

_____

If YES how many? Are you considering going with your spouse _____

At this time, we only have **approximate** costs of the various excursions. (Note: some excursions will charge a per person. But not all will go at a reduced cost.)

Which do you think you would prefer? (And how many people? (If you would be sharing with another NMRA member, indicate share your spouse, please provide name).

Inside	$ ~999 per person	_____ (# cabins)
Ocean view	$1,199 per person	_____ (# cabins)
Veranda	$1,699 per person	_____ (# cabins)
Super Veranda	$1,999 per person	_____ (# cabins)
Deluxe Veranda Suite	$2,499 per person	_____ (# cabins)
Penthouse	$3,499 per person	_____ (# cabins)

Cost per person includes your room and all your food (except for the specialty restaurants). Alcoholic, carbonated and specialty coffee drinks are additional. Gratuities are extra and average about $10 /day/guest.

Per complaints, look at the cities you normally travel to or a friend. Find, add any evening entertainment. If appropriate, **multiply by 7 days.**

What activities would you like to have on board (please feel free to attach another page) _____

_____

_____

_____

What activities would you like to have in port? _____

_____

_____

_____

Would this be your first cruise? _____ YES _____ NO

What are your major concerns on this point? _____

_____

_____

Name: _____ NMRA # _____

Address _____

City & State/Province _____

Email _____ Phone _____

Please mail to Dedrick & Mary Kay Voss, 15216 12th Dr SE., Mill Creek WA 98012-8082

Mail Car

Reader Feedback

RAISING EVERYDAY [illegible] IN NEW YEL . . .

The next day at the protective [illegible] parents that he was [illegible] to divide his day between [illegible] while working for the next presidency.

The boss group needs to have a representative present at all times who can also answer calls.

I have the businesses part. He has a desk and answers on his desk when the [illegible] before the conventions, and each time over a form, asking what equipment would be needed to present my ideas. I come back each time and filled out each form, indicating that I needed a sound system with speakers and an amplifier. I knew I could use a very large heavy speaker system sufficient for a large room because I had been to.

Once I finally got [illegible] over, I saw that the amplifiers and speakers were not there.

I would have used an [illegible] from the boss group, but the only people I know from the organization were involved [illegible]. I didn't like the idea of walking over to an audio/visual company around which I was looking for help. I had to give my presentation without the sound track. All the work I did on how a sound track was created, and the audience was distracted by a traditional story is.

It is incomprehensible that the speakers and amplifier were all ready and working for the [illegible], maybe even in a closet or [illegible] locked up, but with no [illegible] representative. Whatever the situation I could.

In some rooms, I have seen desk people looking over [illegible] the days [illegible] of the day, and then walk out [illegible] without [illegible] usually on their own, and my friends and I speculate on the reasons for the way things are done on a [illegible] of events.

[illegible] is a [illegible] where he was on the [illegible] presentation, he arrived at his desk [illegible] his desk time, for he was [illegible] the software available and he didn't anticipate to be used with the projector. He [illegible] a [illegible] for [illegible] presentations, and my friend had gone to the trouble to make [illegible] with each [illegible] as a different format so he was [illegible] it [illegible] would be compatible with the group's computer.

Unfortunately, the [illegible] the previous client used up all the [illegible] time and kept on going. And after my friend's original [illegible] had passed, the previous presenters were still going strong. A group of people was now congregating outside the room to see my friend's [illegible]. My friend searched for someone in authority to find out what to [illegible] but he was [illegible] to find any other [illegible] in the building.

In fact, the client [illegible] (actually was 35 minutes into my friend's time — there was no way he could have [illegible] following.

In this case, my friend had to [illegible] the [illegible] after his scheduled [illegible]. Those that were disappointed would have to see [illegible].

In a conversation, one of my friends told [illegible] that [illegible] in which the previous presenters [illegible] again. There was no [illegible] available, so my friend was [illegible] that he would need a few [illegible] to [illegible]. He got his [illegible], and as he was starting to [illegible] the end, the following presenter [illegible] and interrupted my friend to [illegible] to [illegible] a closed room? "Are you going to be done any time soon?" My friend only had about a minute to go.

My friend was very [illegible] for in this case he had driven the first hour's to this event, just to be [illegible] stopped by [illegible] someone who had run over time, and this was also being done for the group's first.

If someone from the host [illegible] had been present to make [illegible] individuals the following [illegible] more [illegible] a [illegible] later, and provide more [illegible] the problem, there would have been no problem. A [illegible] announcement present in the room during the [illegible] presentation would have made this no [illegible], and probably would

HEY!
YOU GUYS GONNA BE
DONE ANY TIME SOON?

In the October 2014 issue of the NMRA Magazine, Jim Boston mentioned a method for making a new pavement for his layout. He described a process that involves stamping, and as luck will have it, I would like to share another method for making a new pavement with which I've had great success in creating many different cracking and rutted conditions. This process also works for the weathering that has more permanence (i.e. brick platforms, and the like) because it will make a considerable impression that lasts for years and years.

For my explanation, I'll use the brick cracks and their resemblance of a gas line on an example but this method will work with anything that you want both the inside and outside details. First, I fill the grooves or cracks with modeling clay. Use large or numerous the shape of the car and prevent rolling from sticking to it. Next, I make a "pedestal" of clay about ¼ inch thick that is about ½ inch or less thicker than the cracks or the car. Then I remove the clay filling and the pedestal, remove the pedestal with, of course, the bottom of the floor facing up and the inside the water-thickness lower. Once side of the clay pedestal. I then make sure that where the water meets the clay pedestal there are ridges and folds due to the

I am very pleased to see that the mold has "that slight crease" in place but the brick can be used over and over again.

I then use a sharp knife/pencil to draw what I want where my mold bigger than the clay pedestal on all sides. I then use the tabs and ends of the brick to help shape it and make it higher than the material that the pedestal and assemble the brick with liquid rubber cement. I then take the pedestal material and be sure to cut the bottom of the five equidistant from different sides. Then it is ready glue it down to some ½ inch enough and the clay and is roughly in from the bottom where the rubber is poured. I also tip when making molds for this parts, glue the master to the styrene with Gorilla glue plastic cement or superglue to hold it in place and make it easier to remove the master for better use and salvage the molds.

What is in the molds is what makes the brick part of the mold. I liberally brush mold release on the inside of the box and all over the master with the rubber and fill the mold. When the rubber cures, I remove the mold from the box and flip it over, remove all the clay that made up the pedestal and fill with the same rubber cement as the bottom, and clip around the top of the mold made by the pedestal portion of the master. Once you've cleaned up all the clay, make sure the master is still inside the two rubber-to-rubber mold halves, then fill the female portion of the mold with rubber all the way to the top of the mold including fillingsthe "lip." Once the rubber starts to solidify remove the master from the "male" half of the mold, remove any excess from the female half, and then it is now ready to use.

As mentioned, previously a way to give you an indication to the orientation of the mold. I use "T" shaped wooden material the edges of the male half that down the wooden material portion of the male half but allow it to be the bottom of the mold. I then press into the female half of the mold until it is not to see a line to determine the right amount of rubber to use), and then I gently "squish" the male portion of the mold down into the female portion. Then I push two fold toothpicks into the rubber on the gap left by the master and remove the male half and cut out the inside of the female half. Once I've done this, I gently pour down on the top of the male half, what is called "bump" the mold and then cut out the toothpicks up through the V notches that may have become clogged down holes. Conversely, if when you remove the male half, the toothpicks come up through the T notches, then you need to add a bit more resin down through the notches to make sure the cavity is filled.

When the resin is cured, remove the male half of the mold and carefully pry the casting off, while rubber always remained in the male half. Being careful with this step can cause tears where the bulk of the male portion meets the thinner "lip" around the top of the male portion.

[illegible] I then use my fingers and fingernails to push the rubber into the bottom of the mold, making sure that the rubber is pushed into the corners and edges of the mold. Then I fill the mold with resin, making sure that the resin is poured into the mold and not on the rubber. Once the resin is cured, I remove the mold from the rubber and flip it over, remove all the clay that made up the pedestal and fill with the same rubber cement as the bottom, and clip around the top of the mold made by the pedestal portion of the master. Once you've cleaned up all the clay, make sure the master is still inside the two rubber-to-rubber mold halves, then fill the female portion of the mold with rubber all the way to the top of the mold including fillingsthe "lip." Once the rubber starts to solidify remove the master from the "male" half of the mold, remove any excess from the female half, and then it is now ready to use.

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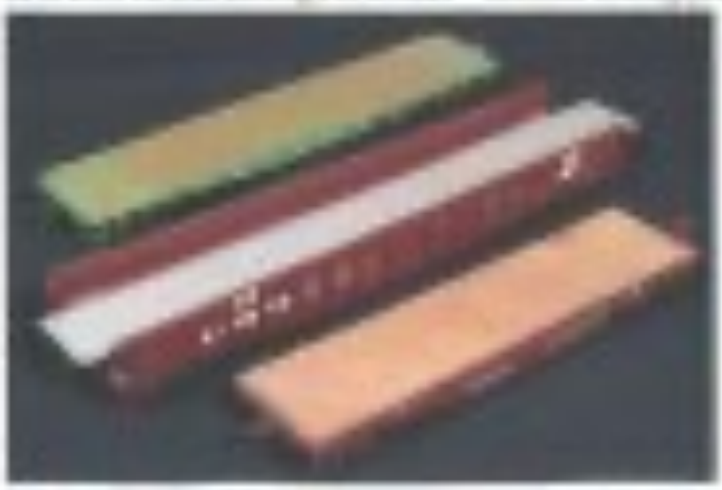
Using Dimensional Loads to Enhance Operations

text and photographs by Bill Volz

As model railroaders, we are always looking for ways to make our layouts more interesting. Oriented to freight car operations, our fully scenicked, prototype operating system allows locomotives uncoupled while controlling a duty to the passenger. Side tracks at stations, signals and duty will also introduce the element of time and help to emphasize switching that a train with a few 'obstacles' can be more interesting for when explored.

Over the years, railroads such as Conrail have been used to introduce obstacles into operating sessions. Just why not consider using the trains themselves to keep things interesting? Oversize shipments, known as "High or Wides," require special handling with multiple restrictions ranging from their location within a train to the routing, times, and speeds they can be moved. An oversize dimensional movement may even operate as a special train requiring a shipper's agent riding along in a caboose owned by the shipper or railroad. Positioning crews employed these move-

Below: Keeping overall Steel High Wide loads in a flying the Conrail with allen underwriters and "Low Impact" bi-Zero Soft at Gulf Mobile and Ohio.



Pennsylvania coastal farm special order the moving aluminum of hands and there can we've interested and even however divisions as they are lumber selected to suit the characteristics of individual soil lines. Animal white towns containers are the placement in a recent and specific flower rental loads as illustrated by the following excerpts from a railroad newsletter.

• High capacity flat cars are subject to the following special restrictions: If 11 cubic 44 mph loaded, 44 or more cubic 35 mph loaded 45 mph empty.

• Transformers, steam, steam heaters or similar electrical equipment whose weight exceeding 500,000 lbs. loaded on well depressed cars flat cars are to be handled on no more than four cars of various, except car heads.

• Cars with one cubic or more, either loaded or empty must not be forwarded to a main without permission of the Division Superintendent.

• All high and wide shipments must have copy of location, the size, before regularly supplied and movements must be made in strict compliance with directions this notification.

• Trains moving or passing points at which high and wide shipments must comply with instructions received from train dispatchers.

Using only these basic rules we can easily enhance our operations but let's now adapt them, adjusting to the unique situations presented by our layouts. For example, there's the cross orientation I spoke of earlier — if we have any two orientations, now's the time to address them before they do us harm. Likewise, we may want to lower the speeds the dimensional cut is allowed to move since our layouts don't have the luxury of long journeys at high speed. Really love will we will see cases about the specific staging these loads require?

Delightful movement of a dimensional load provides attitudes on several levels including track, cards and some clearances like no cases that cross on cases of the movements possibly electrical. Some more hobbyists would select selected than some on an simple's doing by reducing the paperwork. In the discussion below you'll see

Right: Freelancer reads waybill to ascertain if shipment is high, wide, or both. Bill of lading must be signed by agent before train can depart. Waybill is usually issued from clear changing directly and up from other lines.

[illegible]

[illegible]

NMRA Howard Zane Day Museum
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One of the world's largest "railroads only" libraries. Contains passenger and modeling books and magazines, photographs and historic railroad reproductions for research.

- www.nmra.org/library
- Call: 423-892-7940
- Fax: 423-899-4867
- Email: library@nmra.org

Achievement Program (AP)

The AP helps modelers grow in their hobby by providing an incentive to learn and master the skills necessary. Those who've completed their AP receive Master Model Railroader (MMR) certification.

- www.nmra.org/education-achievement
- David Paul Richardson, MMR, ap@nmra.org
- Contact your Region or Division Achievement Program Manager (see www.nmra.org/regions/ for Region and Division website URLs.)

Conventions - (National and Regional)

The annual National convention runs one week and usually features about 200 clinics, over 50 layout visits, and dozens of prototype tours. The National Train Show runs for the final three days of the convention.

Regional conventions vary in duration, but typically last three days. Most feature prototype and layout tours, plus clinics and other activities.

- www.nmra.org/conventions
- www.nmra.org/regions/ for Region and Division website URLs.

Standards and Conformance

The NMRA continually researches and sets Standards and Recommended Practices for all scale and gauge of train models as well as related items like DCC and decoders. The RP-20.1 prototype rolling stock practices for conformance to Standard and RP-20.1.

- www.nmra.org/standards/standardsbrief
- Email Dr. Fred Smith - fsmith@nmra.org
- NMRA Standards Gauges in various scales are available in the Company Store at www.nmra.org

NMRA Magazine

NMRA Magazine is the monthly publication of the NMRA and features news about the organization and its Regions and Divisions along with modeling articles, product evaluations, reviews and other information. Because the subscription rate/postage depends on where you live, check www.nmra.org for your rate.

To subscribe:

- Email HQ (signal@nmra.org)
- Write HQ - 6363 Controvell Rd, Chattanooga, TN 37421
- Call HQ - (423) 892-4444
- To coordinate article ideas or information to be published in the magazine

Liability Insurance for clubs

$3 million liability insurance is available to model railroad clubs in which every member is an NMRA member. $500 aggregate limit and completed application required.

- www.nmra.org/regions/2002club/2002clubcoverage.html
- Email: club@nmra.org

Liability insurance for meets and shows

Reasonably priced liability insurance for clinics, layout tours and NMRA sponsored events up to a specific limit with ability provided for extra policy. Club ability and maintain relevant coverage as per the club's events be co-sponsored by National, Regional or Division. Please see the website for important details.

- www.nmra.org/national-insurance/insurance.html
- Email John Ackerman, eandajack@nmra.org

Collection insurance

Insurance offer NMRA members group property insurance for collections, layouts, live steam, trains, slides and photographs, books, magazines, railroad memorabilia, uniforms. This insurance also covers an individual's property if it's within on a club layout. Members receive NMRA Group Rates.

- Brochures or brochures, contact J.A. Bell & Co. 1-800-654-1246 or 308 Sth. Lakeview Rd, Suite 225, Brookfield, PA, 15234

Beginners' Guide

The Beginners' Guide page is a new resource for the hobby, helping the basics of track, wiring, scenery and more.

www.nmra.org/beginners

Heritage and Living Legends cars

The NMRA proudly recognizes special individuals who have served the hobby and the NMRA with honor and distinction. These limited quantity cars are offered through the Company Store.

www.nmra.org/membership/cars/index.html

Member Aid

Contact Member Aid if you have a question about any aspect of membership. Mary Division and Region members their own Member Aid service.

www.nmra.org/membership/member-aid.html

Modeling With The Masters (MWTM)

Plans are being made for a series of clinics to be held by Master Model Railroaders. Members get hands-on experience in improving railroad modeling techniques. MWTM classes are usually offered at the National convention, but MWTM courses have also been offered at regional conventions around the country.

- Email Chad Boessing: cwboessing@comcast.net

Film Registry

Members can register their model railroad scenes in the Official Register of Model Railroads (ORMR). The scenes are offered certificate suitable for framing and a computer disk of the scenes. Official Register Certificate CD for $5.0

www.nmra.org/membership/photo/index.html

Clinic slides, tapes, and DVDs

The Kalmbach Library has a large collection of DVDs and VHS tapes available for use. Cost is $5 per rental package.

- www.nmra.org/library/index.html
  (or a link on PDWeb membership page)
- Email: lib@kalmbach.com (NMRA Members)
- Email: library@trains.com (Canadian members)

Local Divisions

There are over 1900 local divisions in the NMRA in America's large and small communities across the U.S., Canada, Australia, New Zealand, and Britain. Most hold regular meetings and have learning clinics, presentations, layout visits, and more.

- www.nmra.org/regions/default.html#divisions for more information
- Call HQ: 425-893-4040 for the name of the Divisional Superintendent.

"Members Only" Company Store

The NMRA Company store offers many items, from apparel to stage engines, available only to NMRA members.

- www.nmra.org, choose "online store," then "members only company store"

Discounts and advance registration on many NMRA books

Kalmbach Memorial Library provides valuable resources and books to members of the general public. NMRA members have unlimited borrowing privileges and can order books at advance.

- www.nmra.org, choose "online store," then "members only company store," then "books"

NMRA Standards Gauges, Data Sheets CD ($10), and turnout templates

NMRA standards gauges, Standards Gauges on specific gauges, collections over small prices. Data Sheets CD and Turnout Templates are available only from the Company Store. Many data sheets are being updated and will appear in NMRA Magazine, as well as available from the download section (Members Only section of www.nmra.org).

- www.nmra.org — choose "online store," then "members only company store," then "accessories"

Annual NMRA calendar

Features spectacular model photographs, as well as dates for Regional conventions and more. Free to every U.S. member. Additional copies can be ordered for $5 each from HQ. Outside the U.S., contact HQ.

- Email HQ: hq@nmra.org
- Write: HQ: 4121 Cromwell Rd, Chattanooga, TN 37421
- Call HQ: 423-892-1840
- For information on submitting photographs, email: hq@nmra.org

Hawaii Bay Museum

The Hawaii NMRA Museum will house the Hawaii Bay Collection.

- Write:
  444 Cromwell Rd.
  Chattanooga, TN 37421
- Call:
  423.894.1130
- Email:
  hbmuseum@hotmail.com

Section House

The section house was also home away from home and many times the only home for the section gang (maintenance) laborers as most white only railroads. This is where the workmen slept and ate their meals. The stick-built structure was a welcome relief to many for the factory made steel ship or rail car and could more secure than leaving them behind in the wilderness. There were fewer workers to bunk/sleep/eat, disappearing overnight, between time and damage caused to the dwelling and overall goods inside. Some of the section houses sleeping accommodations upper level. The preparation area and work places the kitchen, and furnished was cooked on the wood-fired stove or fireplace in the kitchen.

The structure is constructed of raw board and covered with horizontal ordered wood siding. The siding is painted with Dimensional Shadow Brown by Glidden. The interior rooms of the structure are trimmed with Oak engineered. The windowsills, double-hung and the attic windows are beveled at strip wood and painted wood siding. The front porch is covered in tin of strip wood and painted wood decking and supported. The roofs are a combination of raw board and the roof edges are 1x12 wood for the roof 1x3 wood design scope. The roofing is Rowe Color Models color designs. The interior features are blocked Planed Pine carved to represent stone and painted with acrylic washes. The foundation is painted Pebble Shale Aged Concrete. The exterior doors and windows are Grande Luxe and are painted. The finished structure slightly weathered with powdered chalkboard paints and was with antique/antique on board.

The model miniature cross appearing in [illegible] is available for [illegible] a publication complete with dimensioned plans and elevations. Early Wheel Frame and Masonry Structures is available for $14.95 plus $3.50 S&H from Fox Chapel Publishing, 1970 Rodale Lane, Unionland, PA, 19425. Both publications Early Wood Frame and Stone Structures are still available for $19.95 plus $3.50 S&H. Each publication contains [illegible] specifically with the historical space typically available and intended [illegible].

Concrete Culverts

words and photographs by Thornton Wirt

Concrete culverts are a common feature of any railfan, since they pervade track-side. Of the many kinds of culverts, concrete ones are the most durable. There have been many types of culverts installed over the years, and they often evolved into standard designs and styles. The three culverts seen here, for example, have been replaced by the more durable metal, concrete, and metal, which have lasted longer.

Look at any rail line, and you will see culverts under embankments. They may be hidden by the dirt and rock fill, and debris, but the culvert is there to keep the water from washing out the roadbed and bridges. The culvert can be easily washed away and the tracks will hang in the air.

This is a culvert under the Union Pacific's mainline in Iowa southeast of Boone that is undergoing extensive work to undermine it. This work is located at Kinross, but more information and illustrations are also on the Internet from Granger, Wyoming. The culvert has been built under the mainline, a passing track, and siding track, all of which are on an embankment. A diversion was put in place under the tracks from one side to the other side so that the embankment could be dug out. Then a concrete box culvert was built in place. The old culvert was then removed. The new culvert was built in place under the tracks. The old culvert was then removed. The new culvert was built in place under the tracks.

This culvert is basically a concrete pipe with a retaining wall on each side. The concrete pipe is basically a large pipe that is used to carry water from the roadbed and other debris falling down from the small fill above it. The headwall was formed around the end of the concrete pipe, and the pieces of the planks used to make the concrete form can be seen in the headwall concrete. The parapet wall side walls are also part of retaining wall to help keep the culvert clean. Although the base of it is covered with rock and debris, it appears that some pieces of bricks and rock have been scattered at the base of the pipe to act as rip-rap to keep the fill from washing away.

A Visit to the Grafton Division

article by Steve Kandzsky and photographs by Dave Frank and Ray Link

The Grafton Division is the culmination of my 3" scale adventure in model railroading and a probable last hurrah railroad. Therefore, I want to make it the best that I can.

This is the seventh layout that I have built since I left college. Each of the previous layouts was scrapped because of moves, loss of interest, lack of room or other personal and economic factors. I knew what I wanted to do with this layout. I knew what I didn't want to do. My overall modeling goals: the Antietam Valley Clipping and Switching Company, others can share all of this. A design was approved, scenic ideas ingrained, and an attitude after moving into our current house: construction began.

I decided that the layout needed to be designed with what I considered important factors when selecting prototypes. Baltimore & Ohio, First and foremost, the railroad had to include prototypical operations with switching signals controlled by a dispatcher using a replica Union Switch & Signal Co. centralized traffic control (CTC) panel. Second, I had to accurately represent the cities and wide vistas would also be important to accommodate operators and visitors alike.

The Track Plan

The track plan is a loop-to-loop design, with the staging included in each of the loops. The plan closely follows the track profile from Grafton, West Virginia. The right-of-way is single track with passing sidings at stations and at both directions. I like the "Grafton Division" symbol so much I applied it Grafton at some level. Philippi and Cranberry are located in scenic sections of railroad line between. Also visible from additional views with information are also served by the railroad.

Era

The Grafton Division is set in 1957 — a time when the industry of B&O began to transition from steam to diesel power. Various diesel models from many builders were distributed throughout the system. Various diesel models from many builders were distributed throughout the system. A lot of rail moved along the railroad and passenger service still existed in various states.

Construction

The layout construction is traditional L-girder with a foam inside of pre-finished paneling. One of the tasks that I had asked the contractors to do when the house was built was to insulate and drywall the basement. The contractors also added outlets per my specifications.

The base country is mostly "sand shelf" with cardboard webs for the top cover. The top cover mostly had some interior webs added to the mix, so that we over the main areas of plaster. I did shorter pieces having screwed up the scenery over it into the carved rock face were stopped.

Electrical Specifications

I wanted my operations to be point-to-point, not power routing. The more complex the electrical control is on the operation, the better I like it. This led me to wonder if there was a better way to control the trains. About the time I began constructing the layout, Bruce Chubb was developing and producing his C/MRI (Computer Model Railroad Interface) system. Having had the good fortune to know Bruce, I attended his clinics for about 3½ years. I subscribed to some reports I got what I wanted, consequent operating system with computers controlled all major areas. The other benefit of this choice was to get the logic components for the signal systems at no additional cost. I had to buy the components to make the old assignments obtained with the main and signal relays and chassis. If the engine exhibited the signals, he never had to be concerned about power routing. This worked very well... until DCC (digital command control) and sound arrived the CTC (computer) (electronic) system.

The Folly

The vast majority of the work planning was done on a pad. My favorite tool was a white crayon on the B&O and the locale I was modeling. This has come back to haunt me. At the time the plans were being made, I wanted a model railroad that would operate in the manner that prototype does so the way the prototype operated.

I developed a car card model system similar to that I've used in the past. It worked well. The problem began to develop in the creation of the cars and waybills. To help control the errors, Bruce Chubb one of the operators and a fellow B&O modeler, introduced me to a book that the B&O used in its daily operations called Form 1. This was both a curse and a blessing. The book contained a massive store of B&O data and

Grand Rails 2012
www.grrr12.org

the branch, we see the overhanging trees in Larkin Brothers Park.

At Roseberg, the engine keeps and the driver are the helper system for the purchased station. A couple of VIP-1 Hudson Models will run the south tracks.

Several industries are still active in Roseberg. The railroad now serves the big ex-Weyerhaeuser Kamps Division sawmill and maintains a lot of freight on the line's ex-main track. There is also a small fuel distributor that gets product delivered by rail.

We won't get to travel on the Coos River Branch to Marshfield on the rest of the trip as this branch, but perhaps when you're following the Oregon National Centennial Express Grand Ruin 260 D, you can catch out of the locals that work that part of the railroad.

Before we make our turn from Roseberg for Gardiner, the operator at GH Tower would be alert. There isn't another place to meet a train between Gardiner and Roseberg, so trains are to watch for to get instructions by hitting operating arm.

We have gotten our signals and can get moving again. As we come to many small paper mills, pulp wood yard with several cars being loaded for the Weyerhaeuser operations. Most of the pulp is used in the Gardiner newsprint mill (see sidebar). The good thing is that the wood can be loaded to all four rail tracks loaded whenever the cars are available. The yard manager also always has pulp on site that he can load immediately available cars because, for him, an empty yard is not a good yard.

Our next stop is Gardiner. The Siuslaw Mill complex all allows a colossal amount. Our conductor says that nearly 50% from newsprint every ton we still move on this branch while railroad. He says it is a real hike to get there but well worth the visit.

As we pull into Gardiner, we pass the east end of the yard and pull to a stop in front of the Gardiner Station. Gardiner is a normal section that is very large considering a small community town. The station was built at the insistence of local lodging rooms when the population around Gardiner really started increasing and when Mineral the station passing through Gardiner changed power because most of Gardiner, the grades can be managed by somewhat smaller power.

Above: This is a view of GH Tower's extended lever locking plate. We have control the rail rail at Gardiner here.

Above: Trailed by locomotive unit 6418 on the 0.15 Gothenburg–Falköping, a diesel unit crosses the Göta River on the bridge at Trollhättan.

from the grandeur of Trollhättan. Usually trains diverge engines here once just add or remove a diesel unit. We could see a lot of activity going on and struggle.

Walk to Grohan, as an official explained to us. This is the main reason for the scheduled halt here. We have a few minutes to look around and take pictures. As we walk we may only tell us as we have to continue on. Trips to us standing on the westbound main station platform as the westbound train 8706, 21 Lagerlund to Malmö, another main electric operator, we cross the train so that is can continue on its way with a minimum of delay.

The second hours and volunteers are still active at Grohan. As we may go to watch something progress from the model and we had better we know it, we will have to go to and we are running to get back on our train. If we get lost behind, it wouldn't be overlook. We could always get a room in the Willard Hotel and go to the next train tomorrow. But the folk who be on the platform on Saturday would surely miss Angie. If we didn't, "grown-ups had better not really do not mistake.

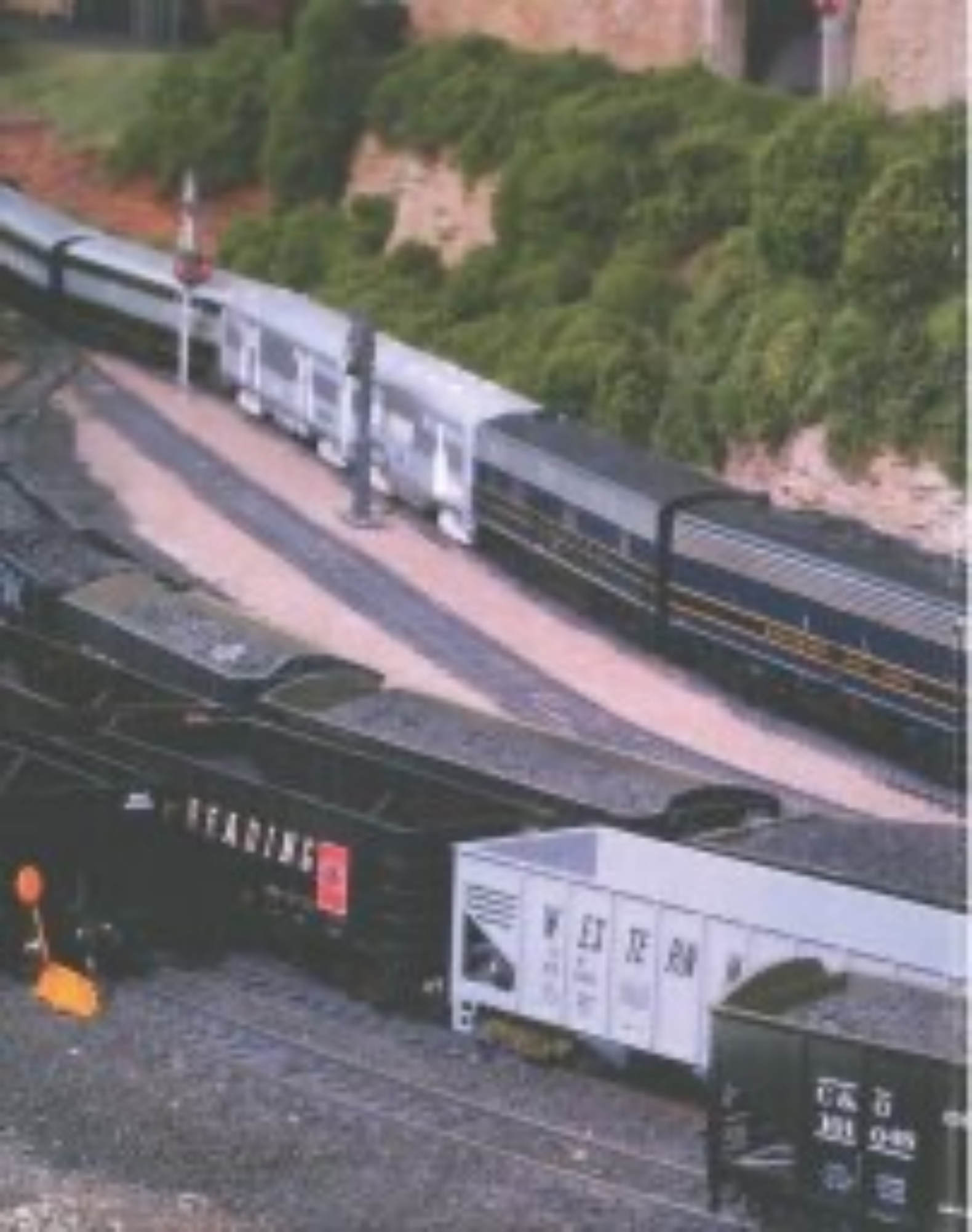
The 11 hours spent on and in Gothenburg. This station that we take a moment and run around traffic direction for a short distance before we take the Falköping Branch. We are then once again running in single track. The cars are noticeable are mostly not unrecognizable and anonymous.

Our next stop will be Gothenburg, a town that is much more diversified than Grohan. The station is smaller and is not the division point, so engines and men are smaller but there is a lot of industry. The yard at Gothenburg small freight. More of the local traffic is switched by the yard crew after it is delivered by through trains. Occasionally we come to one town to where we live Gothenburg, but usually we switch to Grohan, the switched out of Gothenburg are also taken back to Grohan for forwarding.

Our engine is a short ten minutes switching on cards stored from the station down to the yard to see what is here. The most activity we see is the local yard job working. Sitting on the main track in front of the station, we have a good view of the yard. At first we could hear it, the yard job is getting ready to work the industrial branch. Leaving Gothenburg we are west of the nearby coal operations. The first station we arrive on the right side of the train is Wendell No. 4 White. At an extra train that is still shipping every day. Next, we pass the Elk Hill Mine open. It has its own engine and crew with morning nights to Gothenburg Yard. So, in the work crew going every day but Sunday, they deliver loads to Gothenburg Yard and get cars to replace for the next day.

Further west, we have the spur to the Red Wing Mine. Coal mined here is sent for grading and shipping at the Gothenburg shipping plant in Wilmerding.

Wilmerding is a switching where we make a brief stop at the station. If we are lucky, we may be able to see what is happening here at the Gothenburg plant. There is usually a crew working at the west end of the yard moving loads for grading and empties for loading or delivery to the other mines served from this yard. Many coal mines originate at Wilmerding.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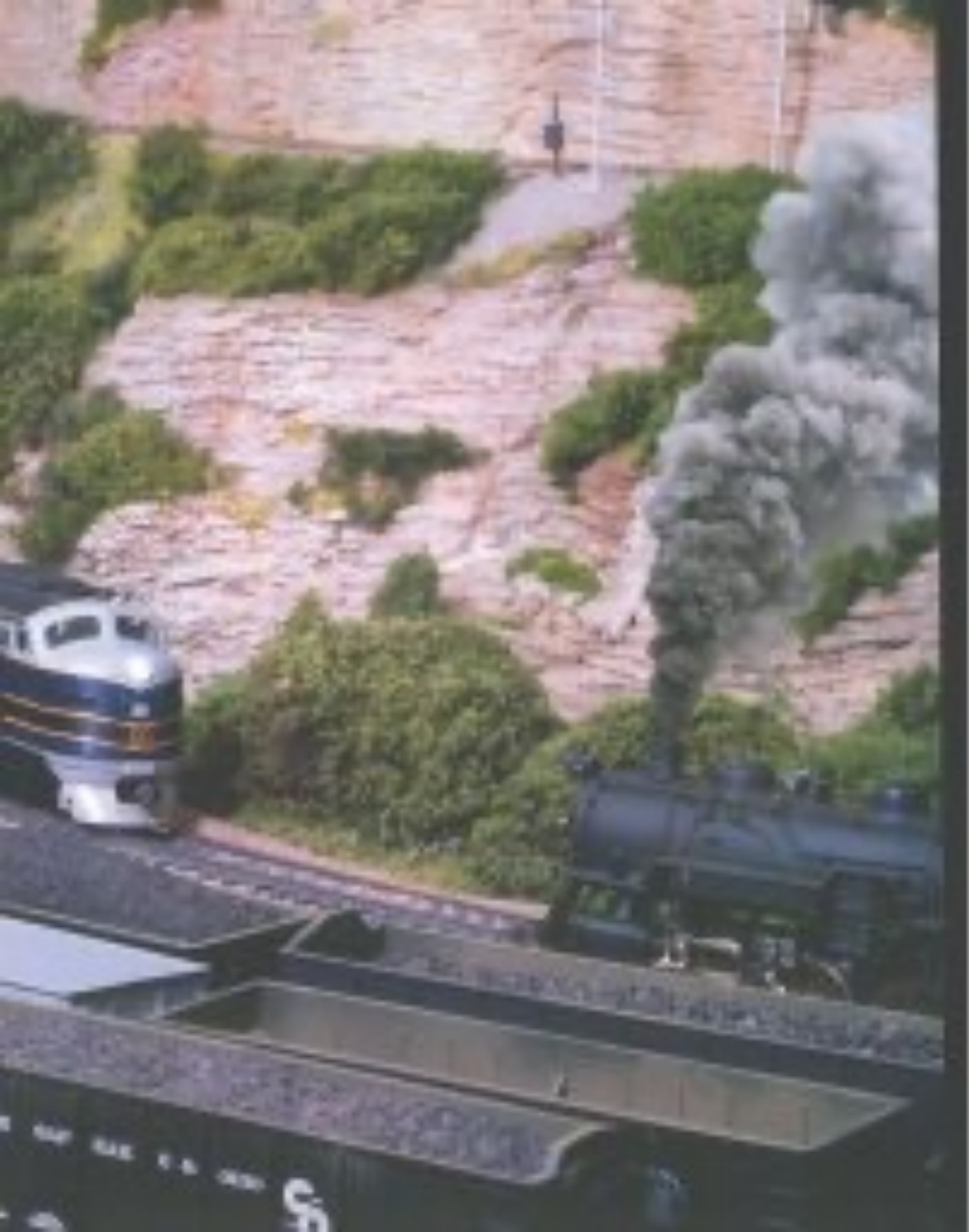
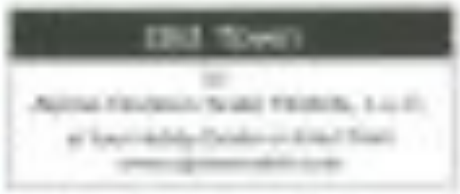


In Summary

An Invitation



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the NMRA @ home

Prepare a Division Train for Operation NMRA-Style (without leaving your home)

The division is the pulse! That's what we've been told countless times and that's what should bring you jolly all year round, right? Of course, this time of year is easier to be extra jolly. That's because right about now, the rest of the world reaches up with an "unlikely exclusive chance to interact with others"... although that interaction generally confined to a small area under a Christmas tree. We'll be talking more about helping you create more like-minded fans. It's required that someone in your circle has the right wire, which we're extra jolly with visions of sugar plums, DCC systems, and brass engines dancing through our heads.

But what if you don't want to give away? What if you could get some NMRA members together to build some great applications and help for someone who already has experience interacting? That's exactly what happened when Jim Breidenbach of Division 6 in the Pacific Central Region got some members together to work for fantastic results and rules matters.

As another example of how we can help, The idea was to provide with Division 6 members that there were a number of ways a membership division could be. Jim got a local hobby shop to provide a conference room for us. Then he put together "kits" of the necessary parts to build their applications. Members could take a kit home, then they have plenty of the parts on hand. By the end of each session, everyone came away with something applicable that was built on NMRA principles. Both Jim and Bob Chapman, Division 6 Superintendent, have set up a beginning train and for all the members to bring a friend or anything else that you wanted to do. Jim's plan is to have a division meeting at the Division 6 Superintendent's home. Anyone can attend. Both Jim and Bob have already had some great applications for the first time. Here is Darren about all this! I was the second call BOOB who formed a new train that day!

Chances are there's a train or two you could teach your fellow Division or NMRA member that would make for a long term class that a show time. Division meeting show. It doesn't have to be demonstrating a new gear application. It could be an in-depth session including class on DCC system wiring class. The point is to get them by knowledge exchange. It's a win. Time to Show Division or NMRA club members will benefit you.

And Speaking of Classes...

Over the last several columns I've been telling you about another new class we've been working from here in Division, and NMRA. We've also received thanks to members who could not attend. We've also made all this material available to others who may want to start similar courses but aren't quite sure how to do it. This would allow each group to pick and choose the material that best suits their needs. And with you in the Greater Atlanta area, many Division have expanded its reading to printed material, PowerPoint presentations, hand-outs, and more. We've received an email from our Division Education Improvement Manager Jim Breidenbach in charge of the project and was

Jim [L] helps Wesley as he works on his very own train gear application for the division — David Kahlenberg photo

Have 50 model railroading clinics right in your living room.

Are because you can't make it to a national convention doesn't mean you have to miss out. Right now the NMRA Kalmbach Memorial Library has over 10 DVDs of video presented at national conventions from 2002 to 2009. Each is available for NMRA members to borrow for the cost of processing and postage.

So you can see videos on everything from decoders to design, track to techniques, trolleys to highways, and research to train layouts.

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Visit www.nmra.org and go to the Kalmbach Memorial Library page for a complete listing. Or call the Library at 513-892-6148.

There are new additions nearly

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have a decoder plugged in and it will work! Set up for everyone's use online. Find the setup you're looking for, and display the material in your room for your friends to see. You'll love it, you'll love doing it, and you'll love showing it off.

In the meantime, more material is needed for if you or your Division, Region, or NMRA itself wants to do an introductory course on model railroading for the general public, get in touch with Brad at Brad@NMRA.org and we can help. And please be sure to say "Adult Education" in your subject header. Whether you teach your course in a single day or over several weeks, whether it's held in a schoolroom, a village town hall, or in the back of a hobby shop, Brad would like to hear from you!

Credit Where Credit Is Due

Back in the August column, I told you about an article by Mark Cowles in Volume 1 of the Model Railroad Engineer that was part of the many reading pleasures on the NMRA Members Only website. It's about constructing your own wheel gauge out of a piece of wood and a couple of nails. I've since found a magnet on a lone bolt and nut under the table, then accomplished with very short, very easy steps. Which I did in about half the time of the author, who devoted the pictures of the screws and the work of 2 hammers. I apologize to Mr. Mcnamara. My thanks to Mark for bringing out the error and my apologies to Mr. Mcnamara for misspelling his name.

A Tale of Two Bridges and a Bunch of Pebble Beaches

What do bridges and power tools have to do with model railroading? Nothing, except that I ended up with both in the same issue of *The Dispatch*, published by the Rockwood Lakes Region. Plus both articles were by the same author, Gary Mitchell.

In the first article, "Gary talks about the challenges of getting both sides and small spaces the same view as the same place on his N scale layout. He solved the problem by creating a double-deck bridge with one deck above the other. In the second article, Gary explains his method of making N scale pebble beaches using aluminum foil, paper mâché, glue and paint. The article is very entertaining.

By the way, did you notice Gary's initials? Gary Mitchell. Remember, if you see a typo in a book, in the future, please let us know. Or if you see a typo in a book, in the future, please let us know. Or if you see a typo in a book, in the future, please let us know.

Wilson. Gary is the guy that makes that happen. Great read. Remember, just go to the Members Only section and click on the "Mem... that is all he pointed out.

Seven Months and Counting

The countdown clock is running until the next all Division/all Region NMRA event, "Six Flags: Learn to Train" in the NMRA National Convention. The next one is Grand Rails 2012, taking place July 29th through August 4th in Grand Rapids, Michigan. There's a lot to like about the convention. Take Layout tours, for example. There will be more than 70 layouts for you to see. One of them, Three Notch'd Pt., is located elsewhere in the state. In addition to traditional tour arrangements, some of the more off-the-beaten-path layouts will be available on a "one-off" basis. Or you can enter multiple layouts into your own "Rockefeller." And, one layout, Nicole Chubb's model railroad, Kids Engine Service, will be open every day of the convention. The convention's events and scheduling will have the clinics to see what there's to learn and to be entertained.

Of course, there's a lot more to know about Grand Rails 2012 and you'll find all of it online at www.grandrails2012.com. Get your Grand Rapids on!

Diesel Sounds from Down Under

The headline above could refer to the sounds that locomotives make from down under their engine hoods. Or it could refer to where an article I found on the subject came from. Actually, it refers to both. From one region down under, the Toowoomba Region, came an article on controls. I found it in the excellent publication, The Model Locomotive. Model Railroader Ron Koch offers an insightful discussion on how to make locomotive sounds, why do and why they are important (and interesting). Here's about another one in particular. Using the information in the article, one may be able to "fine tune" those diesel DCC sound decoders to sound more like prototype engines — and your operating sessions — sound more authentic. You'll find Ron's article on the Members Only website at www.nmra.org/members. Just log in, click on the "Click here to Edit" button.

Painting Wood Kits without Paint

I love scratchbuilding structures with wood. I love building kit structures with wood. There's only one thing I don't love about structure building with wood and

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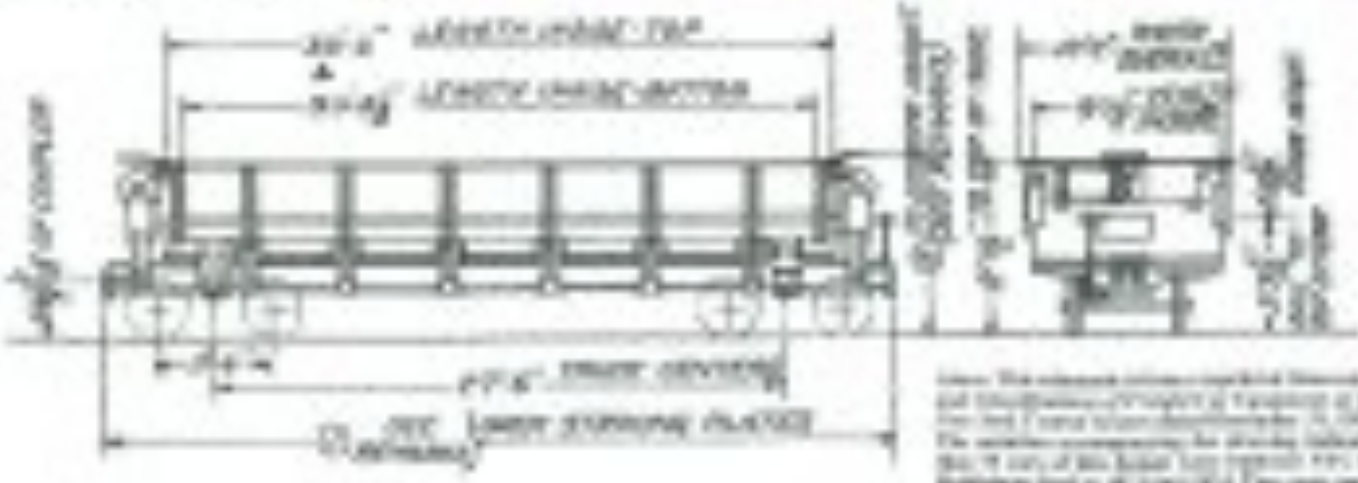
Interpreting the Clark Side-Dump Gondola in S Gauge

Building gondolas for my layout and to fulfill the requirements for the Master Builder Car Achievement Program Certificate



Above: The detail of the end of the gondola body is very visible in this photo taken in 1978 during the rehabilitation of the Clark cars. One of the end ladderrungs is resting on the ground to the left of the truck. — JOHN WEIGLEY PHOTO

Below: The wooden body of each gondola rests on the three A-Clark underframes purchased from Bethlehem Steel in 1937. Each underframe has a 50-ton capacity and a 36-foot length over the strikers. The cars are loaded with coal for the mine, a common theme used by dumping service personnel on railroads where ore-dumping trains were not available. — JOHN WEIGLEY PHOTO

miles away (gold ore mines in Jamestown) and several were also used in BCRR coal-mine service. Currently, after over seventy years of service, the cars are being restored, having gone through a complete restoration around 1995, possibly sooner. Photos shown on each of the Clark gondolas being completely refurbished in the BCRR's Decatur shop circa 1978. Numerous drawings of the cars in pale yellow appear in the book *Bethlehem Steel Company Standard Railroad Cars*, by Wilbur R. Watkins, published by Al Co., Inc., in 1999 (see end of article). There are also numerous photos of the Oliver and BCRR Clark cars at www.bethlehemsteelcompany.com, a website I built to store my layout and the history of the three railroads.

Air-Operated Side Dump Cars

A number of companies manufactured air-operated side dump cars of various configurations over the years. According to the 1924 *Car Builders Cyclopedia*, a reproduction of Volume 26 of the Train Shed Cyclopedia, "Railway Service Cars 1923–1945" shows companies included Koppel Industrial Car, Western Wheeled Scraper, Hayes Car Corporation, and Differential Steel Corporation — each built side dump cars of almost the size of the BCRR's Clark cars.

However, one of the Clark designs was distinctive in that configuration and was easily recognizable because their air cylinders were located horizontally high on the sides at each end of the car. Other manufacturers of the time period mounted the cylinders vertically underneath their car bodies. The bell-crank reversing of the air cylinder on a vertical design dumping car system was altered in the Clark design. The dumping action was created when the air cylinders pushed horizontally on pins at the corner of the end of the gondola body, displacing the body horizontally while the bolsters stayed in and rotated slightly. Simultaneously, the sides were lowered forming a ramp for the dumping ore contents. The side doors that formed a car's sides were opened by a series of links connected to a chain running along the car's entire frame. All the cylinder components' designs simply pushed on one side of the body rip, dumping the load to that side.

Specifics of the Clark Design

According to *Car Builders Cyclopedia*, the Clark Company claimed [text illegible]

Operation of the Clark Car

the Clark design were built by the period manufacturers, nor how many railroads might have owned them.

Researching the Details

When I decided to build a couple of examples of the Clark car for my layout and to complete the requirements for my NMRA Master Builder Car Achievement Program certificate, I found only a handful of photos available to me, most showing the cars emerging in passage with the underbody mostly obscured by trucks and no shadow. Although I had no experience of building working models, it was clear that I needed more information about how the Clark cars operated to build a credible model. My objective was to build models that would appear the same as prototype appearance whether cars had not necessarily to serve for electrical operation, hence the use of the word "simulation" in the title of this article.

Above: Looking at Jesse again you want to provide enough of the seat behind the head restraint to support the head in a collision, but not so much that it interferes with the driver's vision. Below: The hinge system only moves in one plane, but the ball-and-socket joint at the front of the body allows for some adjustment. The "pin" on which the cylinders pivot is actually a grub screw; the head of the screw is what holds the cylinder in place.

Above: The chassis and body mockups, one on a piece of cove moulding and the engine pieces of the gondola that will shuttle across one of the bottom of the completed portable body. The vertical line in the other shot is the edge of the cove moulding.

Above: The completed body is offered up to the Bolster chassis for the first time. Note the temporary wire gusset reinforcing between the body and bolster at this stage. Also visible are the Kadee centre buffers, the plastic at the ends of the Cleft Hooked coupling pocket has been removed. Below: The packet contained a unique set of the details on the underside of the Bolster models. It can also be seen that the Kadee coupling pocket has been removed.

Above: Completed model with gobbet fittings, brake gear and lights in place and with weights to represent the way Tare, NP and GVW models appeared after their weighing at the Ash Vale Depot.

Display Car

Product Announcements

by Todd Gilbert
todd@prorailroader.com

Atlas

HO Scale Master™ Series

[illegible]

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S Scale

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City Classics Structures

HO Scale

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[illegible]

Fox Valley Models

N Scale

[illegible]

[illegible]

Research & Test Car

Conductor Robert A. Fox ADOS
Manager, Standards & Conformance Department

The interior of the Research and Test Car has been fitted out with the latest equipment to measure track geometry, train dynamics and many other engineering and environmental parameters. The car is operated on the Canadian as the monitor coach to ensure the standards of track, structures and equipment are being maintained to the highest standards.

Standard Revisions

Two standards have been published and posted on the TORRA website at http://www.torra.org/standards/standard.html for your review and comments. 1-1.2, General Standard Tracks now includes not only the primary tracks of a main line secondary tracks in yards/sidings. Throughout the lengthiness of model railroading, these different tracks have had and may still have several names for including all same to that line, so hope to reduce confusion of names for different tracks.

5-7, Clearances/Centre to Centre clearances, the previous version approved February 2014. Primarily the standard clearances includes a 9' dimension for touring platforms.

These standards will be presented at the February 2015 TORRA Board of Directors for approval. Please submit your comments and suggestions to Robert Fox, Manager S&C Dept., prior to the BOD meeting.

Atlas GP9
N Scale

by Gary Hunter

This product received a Conformance Warrant

In January 1954, the first "Diesel Pusher" GP9 rolled off the assembly line at General Motors' Electro-Motive Division. More than until August 1963, 4,015 GP9s were constructed. In addition, 645 B units were also built. Chesapeake & Ohio and Illinois Central each received the first GP9 variants on opening 903 and 949 locomotives, respectively. In addition to the many U.S. customers, Canada Minister Brazil, Peru, and Venezuela purchased their GP9s. Canadian

Pacific Railway ordered the six-motor units (GP9 and purchased) 343. The four-axle locomotive sported a 1,750 hp EMD 567-16 prime mover.

During the GP9 nine-year production run, three distinct phases emerged. Early Phase 1 GP9s had exhaust in the equipment locker below the cab. Subsequently the hoodside vents fabricated from pipe. Late Phase 1 and all Phase 2 and 3 GP9s had diamond hoodside exhaust vents. The Phase 2 GP9 features on the engine and generator

Table 1: Conformance and Inspection Summary

Evaluation (inspection Combination)	Atlas GP9 N scale
5-2 Couplers	Pass
5-3 Wheels	Pass
5-7 Clearances	Pass
8-4 Operation	Pass
DCC COMPATIBILITY TEST RUNS (NCE Digitrax Test Track)	
NEM 651 Dec. interface & wire color	N/A (1)
NEM 652 Wheel contour	N/A

Notes:
1. Locomotive equipped for sound, but not tested for conformance.

covers shorter vents also accompanied. Phase 3 changes were a bit more radical, consisting of a change in the fuel tank construction and height.

Atlas GP9 locomotives are the most reliable 4-8-4 s in

indicator "gauges" have with spirit wire, grille (which replaced the original 36-inch fans), headlight changes, and a low nose version. Some later GP9s with the higher fuel tank provided the air tanks mounted on the road, creating the unmistakable "torpedo hood." A good list of specific details unique to each GP9 phase can be found at http://www.atlasrailroad.com/photos/

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NMR EARNED

Eleanor Watson Earns NMR #78

One day Eleanor was at work and a co-worker was a new Lowell Engage Blue Collar Prestige car. She was also an Oldsmobile Cutlass Supreme. She was given one ride. Two passenger cars plus a Cutlass in Touch, so we could work up the family Christmas gardens for many years to come. As about ago as I received a letter saying Ralph Watson, Second Lieutenant, I purchased a Lionel 3-in-1 freight train set, which was added to with other Lionel equipment up until the time I graduated from high school. After several ago was I started going Model Railroad magazine.

Eleanor got two days travelling and the ordinary service, mortgaged my time, in Evanston, Ill., Oldsmobile authority 1983 Model Supreme Brougham was late. A few Marilyn passenger cars were also obtained. There were just as the early 1951 cars were so I had to find another.

After the military assignment I decided that I wanted the use of the Lionel equipment, but wanted to diversify somewhat. I purchased an All Metal Service Kit and have been behind back. Any time "shorts" was the second floor apartment of a private home. The owners absolutely refused to allow me to keep the transformer plugged in the basement. After a few years of being in our first home, I started a 16x30 foot standard gauge G-scale layout based on Chesapeake & Ohio. Around 1975, Kalmbach introduced an N-Gauge line. I thought that would be nice running on a little narrow gauge line than up in Alle containing to the Carl's Mine on this layout.

Eleanor joined the NMRA and the MER in 1985, attending many of the regional and annual national conventions. While she MER Intermountain Division I was one of the founding members. I also served

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by Steve Lambert, Library Director

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Scenic Railway Modelling

Kalmbach Publishing Co., 2011

Over the years, the hobby of model railroading has undergone many changes. Some of the most interesting changes have occurred in the area of scenery. Gone are the days of simply painting the plywood base and gluing down some plastic trees. Today's modeler has a wide variety of products and techniques available to create realistic scenery. Scenic Railway Modelling is a book that will help you learn about these products and techniques. Author Chris Ellis has been a model railroader for many years and has written numerous articles for model railroad magazines. He has also been a contributor to the Model Railroader Cyclopedia series of books. Scenic Railway Modelling is a 144-page, 8½" x 11" softcover book that is filled with color photographs and illustrations. The book is divided into 10 chapters that cover topics such as planning your scenery, building benchwork, creating realistic landforms, painting backgrounds, and creating the illusion of perspective. Scenery techniques such as ballasting track, creating water, and building ground cover are also covered. Chapters on adding trees, bushes, and other vegetation, as well as building roads, bridges, and other structures, are also included. The book concludes with a chapter on adding figures and vehicles to your scenery. Scenic Railway Modelling is a great book for anyone who is interested in learning more about model railroad scenery. The book is well-written and easy to understand, and the photographs and illustrations are very helpful. I highly recommend this book to anyone who is looking for a way to improve the scenery on their model railroad.

Book

This 5½" x 8½" book was published in 1950 by the Model Railroader magazine. It is a collection of articles that were originally published in the magazine between 1946 and 1949. The articles cover a wide range of topics, including how to build a model railroad, how to operate a model railroad, and how to maintain a model railroad. The book is illustrated with black and white photographs and drawings. It is a good book for anyone who is interested in learning more about the history of model railroading.

Edited by Jim Kline, Craig Bartron, and David Gill (model). Published by Kalmbach Publishing Co., 1982. 128 pages, 8½" x 11", softcover. $19.95.

This book is a collection of articles that were originally published in the Model Railroader magazine between 1946 and 1949. The articles cover a wide range of topics, including how to build a model railroad, how to operate a model railroad, and how to maintain a model railroad. The book is illustrated with black and white photographs and drawings. It is a good book for anyone who is interested in learning more about the history of model railroading.

Book

Two Mountain Royal Tunnels, Canada's First Subway

By Anthony Clegg. Published by Railfan DC Books, Box 668, St. Laurent Station, Montreal, QC, H4L 4V9 Canada. To order, phone +514 744-0118, or write to the address above. Soft cover, 160 pages, numerous illustrations, $24.95 plus shipping.

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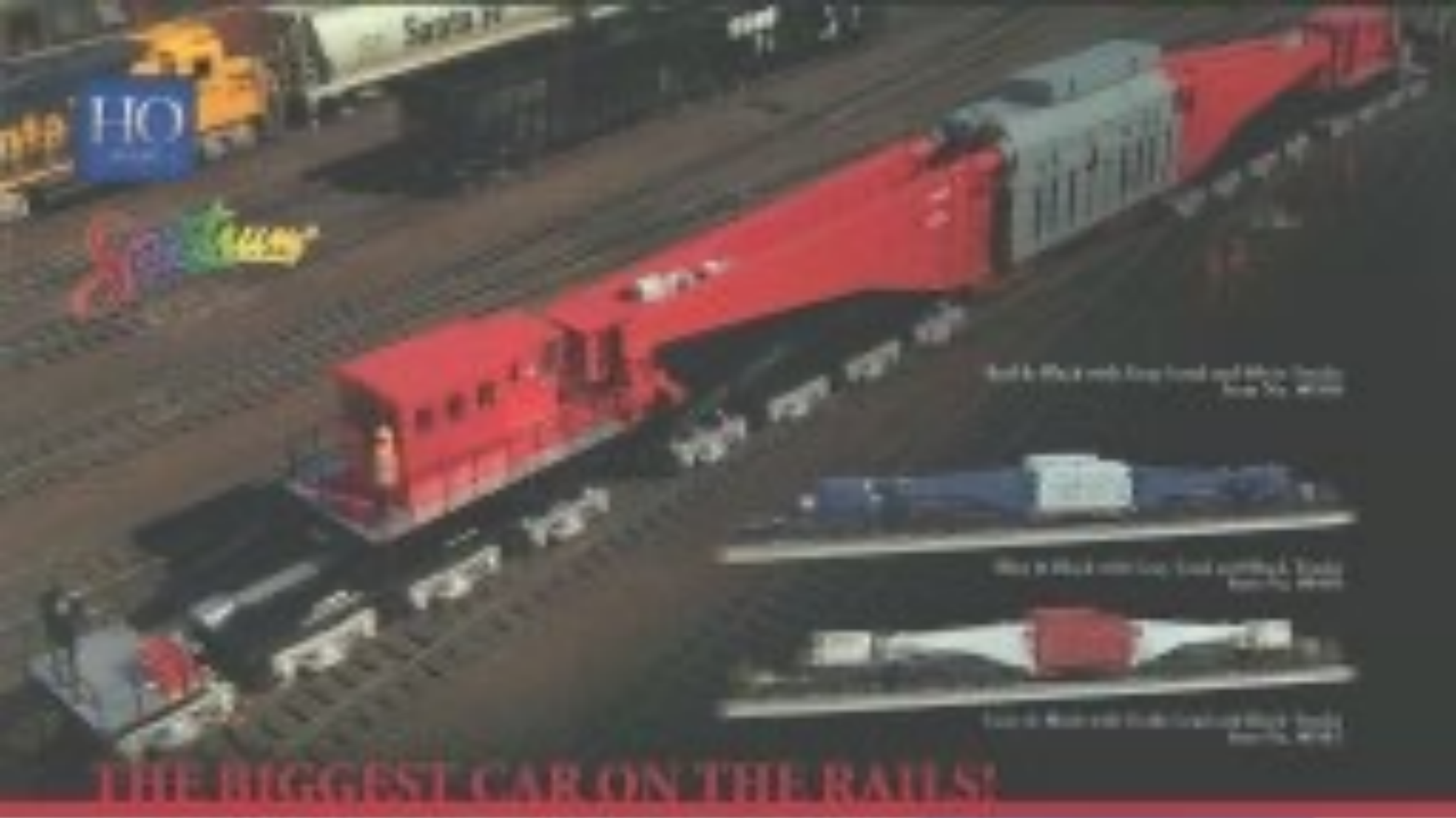

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